

Abstract of the Invention

Novel pseudopeptide analogs of the insect  
allatostatin neuropeptide family which possess biological  
activity mimicking that of the naturally occurring  
5 neuropeptides are disclosed. By addition of a  
hydrophobic moiety to an active portion of the  
allatostatin peptides, analogs are produced which exhibit  
an overall amphiphilic nature and which are capable of  
penetrating the insect cuticle while still retaining  
10 biological activity. Furthermore, by substituting  
sterically hindered amino acids or aromatic acids for any  
or all of the first, third or fifth amino acid residues  
of the allatostatin C-terminal pentapeptide, analogs may  
be produced which are resistant to degradation by insect  
15 peptidases while still retaining biological activity.  
The analogs may be used for insect control by disrupting  
critical reproductive and/or developmental processes  
normally regulated by allatostatins in insects.